

Amendments to the Claims:

Claims 1-26 (Cancelled)

Claim 27 (Previously presented) A process for enhancing ambience in an audio signal output derived from an audio signal input in a dual channel audio ambience extraction circuit, the process comprising cross coupling of audio signals in one channel with audio signals in another channel, each of the cross-coupled signals being attenuated and delayed by no more than a Haas delay time during the cross coupling before being applied in a feedback path to a summing input of an opposite channel to mix with subsequent audio signal inputs to that channel, all of the attenuated and delayed signals being continuously applied to outputs of the extraction circuit during the cross-coupling process.

Claim 28 (Currently amended) The process of claim 27 A process for enhancing ambience in an audio signal output derived from an audio signal input in a dual channel audio ambience extraction circuit, the process comprising cross coupling of audio signals in one channel with audio signals in another channel, each of the cross-coupled signals being attenuated and delayed by no more than a Haas delay time during the cross coupling before being applied in a feedback path to a summing input of an opposite channel to mix with subsequent audio signal inputs to that channel, all of the attenuated and delayed signals being continuously applied to outputs of the extraction circuit during the cross-coupling process; wherein the audio input signal is monaural and applied to an input terminal of each channel each of the dual channels.

Claim 29 (Currently amended) The process of claim 27 wherein the audio processor extraction circuit is stereophonic and the audio input signal comprises left and right channel signals applied to respective ones of the dual channels of the audio processor.

Claim 30 (Previously presented) The process of claim 27 wherein each channel includes delaying the signal in that channel by an adjustable delay time.

Claim 31 (Currently amended) The process of claim 29 and including inverting the audio signals in at least one one and only one of the channels thereby establishing an inverted channel and a non-inverted channel wherein the inversion of the audio signals is applied prior to a cross-coupled feedback which includes feeding back the inverted audio signals to a summing input of the non-inverted channel and feeding back audio signals from the non-inverted channel to a summing input of the inverted channel.

Claim 32 (Previously presented) The process of claim 29 and including summing of the attenuated signals from one channel with attenuated signals from the other channel.

Claim 33 (Currently amended) The process of claims claim 29 wherein left and right channel surround sound inputs input signals are provided to the extraction circuit and including attenuating and summing the attenuated surround sound input signals with the corresponding one of the dual channels channels' audio signals so as to add surround sound ambience to the extraction circuit outputs.

Claim 34 (Currently amended) The process of claim 32 claim 33 and including summing the respective ones of the left and right channel surround sound input signals

with the output signal from an opposite one of the extraction circuit dual channels to produce an ambience enhanced audio signal from each of the dual channels.

Claim 35 (Previously presented) The process of claim 27 and including attenuating each signal by an adjustable amount.

Claim 36 (New) A process for enhancing ambience in an audio signal output derived from an audio signal input in a dual channel audio ambience extraction circuit, the process comprising cross coupling of audio signals in one channel with audio signals in another channel, each of the cross-coupled signals being attenuated and delayed by a delay amount which is about equal in both of the dual channels and which is no more than a Haas delay time during the cross coupling before being applied in a feedback path to a summing input of an opposite channel to mix with subsequent audio signal inputs to that channel, all of the attenuated and delayed signals being continuously applied to outputs of the extraction circuit during the cross-coupling process.

Claim 37 (New) The process of claim 36 wherein the audio input signal is monaural and applied to each of the dual channels.

Claim 38 (New) The process of claim 36 wherein the extraction circuit is stereophonic and the audio input signal comprises left and right channel signals applied to respective ones of the dual channels.

Claim 39 (New) The process of claim 36 wherein each channel includes delaying the signal in that channel by an adjustable delay time.

Claim 40 (New) The process of claim 38 and including inverting the audio signals in one and only one of the channels thereby establishing an inverted channel

and a non-inverted channel wherein the inversion of the audio signals is applied prior to a cross-coupled feedback which includes feeding back the inverted audio signals to a summing input of the non-inverted channel and feeding back audio signals from the non-inverted channel to a summing input of the inverted channel.

Claim 41 (New) The process of claim 38 and including summing of the attenuated signals from one channel with attenuated signals from the other channel.

Claim 42 (New) The process of claim 38 wherein left and right channel surround sound input signals are provided to the extraction circuit and including attenuating and summing the attenuated surround sound input signals with the corresponding one of the dual channels' audio signals so as to add surround sound ambience to the extraction circuit outputs.

Claim 43 (New) The process of claim 42 and including summing the respective ones of the left and right channel surround sound input signals with the output signal from an opposite one of the extraction circuit dual channels to produce an ambience enhanced audio signal from each of the dual channels.

Claim 44 (New) The process of claim 36 wherein the delay value for each of the dual channels is about 30 milliseconds.

Claim 45 (New) A process for enhancing ambience in audio source signals comprising the steps of:

generating a first audio signal;
generating a second audio signal;
delaying and attenuating said second audio signal to form a third audio signal;
summing said third audio signal with said first audio signal to form a fourth audio signal;
delaying and attenuating said first audio signal to form a fifth audio signal;
subtracting said fifth audio signal from said fourth audio signal to form a sixth audio signal;
delaying and attenuating said second audio signal to form a seventh audio signal;
subtracting said seventh audio signal from said sixth audio signal to form an eighth audio signal;
delaying and attenuating said first audio signal to form a ninth audio signal; and
summing said eighth audio signal with said ninth audio signal to form an output signal for one channel of a multiple channel audio system for driving a speaker;
whereby the ambience of one channel of an audio system is enhanced.

Claim 46 (New) A process for enhancing ambience in audio source signals in accordance with claim 45 including the steps of:

delaying and attenuating said first audio signal to form a tenth audio signal;

subtracting said tenth audio signal from said second audio signal to form an eleventh audio signal;

delaying and attenuating said second audio signal to form a twelfth audio signal;

subtracting said twelfth audio signal from said eleventh audio signal to form an thirteenth audio signal;

delaying and attenuating said first audio signal to form a fourteenth audio signal;

summing said fourteenth audio signal with said thirteenth audio signal to form a fifteenth audio signal;

delaying and attenuating said second audio signal to form a sixteenth audio signal; and

summing said sixteenth audio signal with said fifteenth audio signal to form an output signal for a second channel of a multiple channel audio system for driving a speaker;

whereby the ambience of two channels of an audio system are enhanced.

Claim 47 (New) A process for enhancing ambience in audio source signals in accordance with claim 46 in which the step of generating a second audio signal includes generating a copy of said first generated audio signal in a monaural audio system.

Claim 48 (New) A process for enhancing ambience in audio source signals in accordance with claim 46 including the steps of:

delaying and attenuating said second audio signal to form a seventeenth audio signal;

inverting said seventeenth audio signal to form an eighteenth audio signal;

delaying and attenuating said first audio signal to form a nineteenth audio signal;

summing said eighteenth and nineteenth audio signals to form a twentieth audio signal;

delaying and attenuating said second audio signal to form a twenty first audio signal; and

summing said twentieth and twenty first audio signals to form a first surround sound channel audio signal.

Claim 49 (New) A process for enhancing ambience in audio source signals in accordance with claim 48 including the steps of:

delaying and attenuating said first audio signal to form a twenty second audio signal;

delaying and attenuating said second audio signal to form a twenty third audio signal;

summing said twenty second and twenty third audio signals to form a twenty fourth audio signal;

delaying and attenuating said first audio signal to form a twenty fifth audio signal; and

subtracting said twenty fifth audio signal from said twenty fourth audio signal to form a second surround sound channel audio signal.

Claim 50 (New) A process for enhancing ambience in audio source signals in accordance with claim 46 in which the second audio signal is delayed about 30 milliseconds to form the third audio signal.

Claim 51 (New) A process for enhancing ambience in audio source signals in accordance with claim 50 in which the first audio signal is delayed about 30 milliseconds to form the tenth audio signal.

Claim 52 (New) A process for enhancing ambience in audio source signals in accordance with claim 51 in which the second audio signal is attenuated about 15 decibels to form the third audio signal.